

Appl. No. 09/882,634
Amdt. dated 4/27/2006
Reply to the Office Action of 02/28/2006

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AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Currently Amended) The method of claim [[1]] 9, wherein the step of queuing comprises the steps of:
 - assigning a key to each new request; and
 - storing a translated dataset in the persistent memory.
3. (Canceled)
4. (Currently Amended) The method of claim [[1]] 9, wherein the instructions of each mapping rule comprise a computer program.
5. (Original) The method of claim 4, wherein the computer program comprises a Java program.
6. (Original) The method of claim 5, wherein the computer program refers only methods of the Java String class.
7. (Currently Amended) The method of claim [[1]] 9, further comprising the steps of:
 - waiting a set period of time to receive an ACK from the destination system;
 - retrying to send the translated dataset to the destination system a set number of times;
 - signaling an error if the ACK is not received; and
 - upon receipt of the ACK, removing the translated dataset from the persistent memory.
8. (Canceled)

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9. (Currently Amended) ~~The method of claim 8, wherein the finite number is three and the three types are~~ A method comprising the steps of:

receiving a dataset from a source data system, the dataset including a set of data elements with corresponding data values;

translating the dataset from a source schema to a target schema according to a set of mapping rules, each schema including a set of data elements and a set of relationships among the data elements, each mapping rule including a type and instructions for obtaining one or more target data element values as a function of one or more source data element values, the type containing all the information about relationships among data elements used by the function;

queuing the translated dataset in persistent storage; and

sending the translated dataset from the persistent storage to a destination data system, wherein there are three prespecified types that are defined generally for XML documents:

a first type restricting the function to one target data element that is restricted from repeating in the target dataset by the relationships of the target schema and to any number of source data elements that are restricted from repeating in the source dataset by the relationships of the source schema;

a second type restricting the function to one instance of a group comprising multiple data elements that are restricted to repeat as a group by the relationships of the target schema and to any number of source data elements that are restricted from repeating in the source dataset by the relationships of the source schema; and

a third type restricting the function to a first number of instances of a group comprising multiple data elements that are restricted to repeat as a group by the relationships of the target schema, a second number of instances of a group comprising multiple data elements that are restricted to repeat as a group by the relationships of the source schema, and any number of source data elements that are restricted from repeating in the source dataset by the relationships of the source schema, the first and second numbers being equal.

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10-32 (Canceled)

33. (New) A method comprising the steps of:

receiving an XML document from a source data system, the XML document including a set of data elements with corresponding data values;

translating the XML document from a source schema to a target schema according to a set of mapping rules, each schema including a set of data elements and a set of relationships among the data elements, each mapping rule including a type and instructions for obtaining one or more target data element values as a function of one or more source data element values, the type containing all the information about relationships among data elements used by the function;

queuing the translated XML document in persistent storage; and

sending the translated XML document from the persistent storage to a destination data system, wherein there are three prespecified types that are defined generally for XML documents:

a first type restricting the function to one target data element that is restricted from repeating in the target XML document by the relationships of the target schema and to any number of source data elements that are restricted from repeating in the source XML document by the relationships of the source schema,

a second type restricting the function to one instance of a group comprising multiple data elements that are restricted to repeat as a group by the relationships of the target schema and to any number of source data elements that are restricted from repeating in the source XML document by the relationships of the source schema, and

a third type restricting the function to a first number of instances of a group comprising multiple data elements that are restricted to repeat as a group by the relationships of the target schema, a second number of instances of a group comprising multiple data elements that are restricted to repeat as a group by the relationships of the source schema, and any number of source data elements that are restricted from repeating in the source XML document by the relationships of the source schema, the first and second numbers being equal.

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34. (New) The method of claim 33, wherein the step of queuing includes the steps of:
 assigning a key to each new request; and
 storing a translated XML document in persistent memory.
35. (New) The method of claim 33, wherein the instructions of each mapping rule include a computer program.
36. (New) The method of claim 35, wherein the computer program includes a Java program.
37. (New) The method of claim 36, wherein the computer program refers only methods of the Java String class.
38. (New) The method of claim 33, further comprising the steps of:
 waiting a set period of time to receive an ACK from the destination system;
 retrying to send the translated XML document to the destination system a set number of times;
 signaling an error if the ACK is not received; and
 upon receipt of the ACK, removing the translated XML document from the persistent memory.